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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,299	07/30/2003	Brian E. Blair	RPS920030031US1	9082

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SAWYER LAW GROUP LLP
PO BOX 51418
PALO ALTO, CA 94303

EXAMINER

DESIRE, GREGORY M

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/630,299	Applicant(s) BLAIR ET AL.	
	Examiner Gregory M. Desire	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-27 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/30/03</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input type="checkbox"/> Other: _____ |
|---|--|

DETAILED ACTION

Claim Objections

1. Claims 20-24 are objected to because of the following informalities: It appears that claims 20-22 should depend on claim 19 because claims 20-22 embody the features of a system similar to claim 19. While claim 17 embodies features of a computer readable medium. Regarding claim 23, which depend on claim 20, when depending on claim 19 would be objected for lacking antecedent basis. The feature of threshold confidence score is not mentioned in claims 20 or 19. Claim 24 depends on claim 21. Therefore are also objected. Appropriate correction is required. For purposes of preparing the office action, the examiner will treat claims 20-22 as depending on claim 17.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-18 and 20-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

The USPTO "Interim Guidelines for Examination of Patent applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, method and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirement of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract

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idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.

For claims such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature or natural phenomenon. Diehr, 450 U.S. at 187, 209 USPQ at 8 (“application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”); Benson, 409 U.S. at 71 175 USPQ at 676 (rejecting formula claim because it “has now substantial practical application”).

To satisfy section 101 requirements, the claim must be for a practical application of the Sec. 101 judicial exception, which can be identified in various ways:

The claimed invention “transforms” an article or physical object to a different state or thing.

The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors below.

3. Claims 12-18 recites the mere manipulation of data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application.

A practical application exists if the result, of the claimed invention is “useful, concrete and tangible” (with the emphasis on “result”) (Guidelines, section IV.C.2.b). A “useful” result is one that satisfies the utility requirement of section 101, a “concrete” result is one that is “repeatable” or “predictable”, and a “tangible” result is one that is “real” or “real-world”, as opposed to “abstract” (Guidelines, section IV. C.2.b). Claims 12-18 merely manipulates data without ever producing a useful, concrete and tangible result. Regarding independent claims 12-18 the claims merely utilize average confidence scores. The features describe is intended use and is not relied upon. Thus, claims do not provided any result for the processing. Thus merely manipulating data without ever producing a useful, concrete and tangible result. Thus, practical application does not exist in the claims.

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In order for the claimed method to produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2 (b) (i)).
- A recitation of a physical transformation outside the method or apparatus, for example in the form of pre or post processing activity (MPEP 2106 IVB2 (b) (i)).
- A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2 (b) (ii)).

Applicant is also advised to provide a written explanation of how and why the claimed invention (either as currently recited or as amended) produces a useful concrete and tangible result. Claims 20-24 depend on claim 17. Therefore are also rejected.

4. Claims 12-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

The USPTO "Interim Guidelines for Examination of Patent applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When function descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permit function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F. 3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer readable medium encoded with a computer program is a computer element which defines structural and function interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory, See *Lowry*, 32 F. 3d at 1583-84, 32 USPQ2d at 1035.

5. Claim 12 defines programming instructions embodying functional descriptive material. However, the claims do not use acceptable language to incorporate programming instructions to the computer readable medium. The examiner suggests amending the word containing with acceptable language e.g. a) storing a, b) embodied with a, c) encoded with a, d) having a stored, e) having an encoded; or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure. Claims 13-18 depend claim 12. Also, claims 20-24 depend on claim 17. Therefore are also rejected.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-3, 8-14, 19- 21, 24, and 26-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Billester (7,120,302) in view of Iwayama (6,556,883).

Regarding claims 1, 12, 19 and 24 Billester discloses,

Utilizing an average confidence score for a plurality of characters (note fig. 3, 308, shows average confidence score for a plurality of characters is utilized), wherein a confidence score indicates a level of confidence that a character is accurately recognized (note col. 5 lines 25-35, examiner interprets string being incorrect indicates the level characters are accurately recognized). Billester does not clearly disclose an **ongoing performance monitoring of the character recognition system**. Iwayama discloses ongoing performance monitoring of character recognition system (note col. 4 lines 58-63, monitor/studies performance of the character recognition system (good). Billester and Iwayama are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include performance monitoring in the system of Billester as evidenced by Iwayama. The suggestion/motivation for doing so would have been, since it is important Billester for accurately constructing result string using combined confidence for alternate conversion, it would be important for the system to exhibit its design performance during use. Therefore, it would have obvious to combine Billester with Iwayama to obtain the invention as specified in claims 1, 12, 19 and 24.

Regarding claims 2, 13, 21 and 26 Billester discloses,

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Generating the average confidence score from the plurality of characters recorded on at least one end user document prior to the utilizing step (a) (note fig. block 100 and 112, input of mail item examiner interprets a document is prior to confidences).

Regarding claims 3, 14 and 27 Billester discloses,

(b1) Reading a character recorded on an end user document (note fig. 3, 320a-320f);

(b2) Calculating the confidence score for the character (note fig. 3 304a); (b3) Repeating steps (b1) and (b2) for each of a plurality of characters recorded on the end user document (note fig 3, 304b-304f); and

(b4) averaging the confidence scores for the characters with confidence scores of all characters read over a last set number of end user documents (note fig.3, block 308).

Regarding method claim 8 Billester discloses,

Wherein the at least one end user document is a standardized document (note col. 3 lines 15-20).

Regarding method claim 9 Billester discloses,

Wherein the standardized document is a bank note or personal check (note col. 3 lines 18-19).

Regarding method of claim 10 Billester discloses,

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Wherein at least one character is a magnetic ink character recognition (MICR) character (note col. 3 lines 45-56).

Regarding method and system claims 11 and 20 Billester discloses,

Wherein the character recognition system is one of a magnetic ink character recognition system, an optical character recognition system, or a combined magnetic ink and optical character recognition system (note col. 3 lines 53-56).

Allowable Subject Matter

8. Claims 4-7 and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose determining threshold confidence score and average confidence score to monitor performance of character recognition system. Claims 5-7 and 29-30 depend on claims 4 and 28, respectively. Therefore, are also allowable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

G.D.
February 26, 2007

**GREGORY DESIRE
PRIMARY EXAMINER**

